

AMENDMENT TO THE CLAIMS

1.(Currently Amended) A burn-in oven having a heat control system comprising an oven chamber, at least one burn-in board supporting a plurality of devices under test, each device under test being supported in a support having a heat exchanger portion, a plurality of separate controllable fans supported on a wall forming an air flow duct, the wall being spaced from the heat exchanger portion, each fan being on a side of the wall opposite from the heat exchanger portions and providing a flow of air through an a separate opening in a-the wall forming atthe air flow duct in-the oven chamber onto an-the associated heat exchanger portion of atthe support supporting a-the device under test, and into a space adjacent the supports and the devices under test; and a source of cooling air open to the duct-in-the oven chamber, and an exhaust for the cooling air from the oven chamber whereby a flow of cooling air is passed through the duct to each of the separate fans and through the associated opening in the wall forming the air flow duct toward the associated heat exchanger portion and to the exhaust from the oven chamber.

2.(Previously Presented) The burn-in oven of claim 1, including a damper movable to adjust a size of a damper opening for the airflow to the air flow ducts, and a controller for controlling the opening of the damper in response to a selected parameter.

3.(cancelled)

4.(Cancelled)

5.(Cancelled)

6.(Previously Presented) The burn-in oven of claim 1, wherein said source of cooling air comprises a plenum chamber at the one end of said oven chamber, a second fan providing an airflow to the plenum chamber, and the second fan receiving a return airflow from the oven chamber.

7.(Previously Presented) The burn-in oven of claim 1, wherein there are a plurality of oven chambers, and each of the chambers has at least one burn-in board supporting a plurality of devices under test, comprising a separate fan board spaced from each burn-in board to form the space, a separate fan outlet opening through the fan board overlying each device under test on an associated burn-in board.

8.(Cancelled)

9.(Previously Presented) The burn-in oven of claim 1, wherein said oven chamber has a heat exchanger for cooling air passing therethrough, said cooling air passing through the heat exchanger before entering the space.

10.(Currently Amended) The burn-in oven of claim 1, wherein there are a series of vertically stacked burn-in boards in the oven chamber, each with an associated wall forming a duct, the walls forming ducts comprising fan boards, one fan board spaced from each burn-in board on a side of the associated burn-in board toward the devices under test, each fan being supported on a fan board for directing cooling air through an opening in the respective fan board onto at the device under test, and wherein each burn-in board forms one of the ducts in combination with an underlying fan board that is associated with a burn-in board on an opposite side of the fan board from the respective duct, the cooling air in the respective duct cooling the surface of the burn-in board forming a wall of that duct.

11.(Original) The burn-in oven of claim 10, wherein there are a series of oven chambers side-by-side, and a heat exchanger between each of the adjacent oven chambers, the airflow from one oven chamber passing to one other oven chamber and through the heat exchanger between the one chamber and the other chamber.

12.(Currently Amended) In combination, a burn-in oven, and a plurality of first trays in the burn-in oven, combined with a cooling airflow source, the burn-in oven defining a compartment, the plurality of first trays forming burn-in boards having devices under test mounted thereon in a preselected array and edges of the burn-in boards being supported on walls of the compartment; a plurality of fan ~~supports~~ trays supported on walls of the compartment and each fan tray being spaced from each of the burn-in boards on a side of each ~~the respective~~ burn-in board so that the fan ~~support~~ trays overlie and are spaced the devices under test on the associated burn-in board which underlies the respective fan tray, a laterally extending space being formed above each of the fan trays ~~burn-in boards, and comprising an plurality of~~ airflow ducts, one between each fan tray, and an overlying burn-in board, the airflow ducts extending laterally to provide airflow ~~to the fans on the fan support~~ trays, a plurality of fan outlet openings in each fan tray, one fan outlet opening overlying each device under test associated with one respective underlying burn-in board, a plurality of controllable fans mounted on each fan ~~support~~ tray, one controllable fan being mounted at each ~~and having a fan outlet opening substantially directly overlying each underlying device under test on an associated burn-in board,~~ a source of cooling fluid flow on one lateral side of the airflow ducts, a controlled size inlet opening from the cooling airflow source to each of the ~~the~~ ducts, and a controller for selectively controlling the operation of each controllable fan as a function of a temperature signal provided from the device under test underlying the respective controllable fan.

13.(Currently Amended) The combination of claim 12, wherein there is ~~the fan supports comprise fan trays spaced from each burn-in board to form the space, and~~ at least one adjustable damper for adjustably opening each respective space between the burn-in boards and an associated fan tray, the controller adjusting the position of the damper to provide a substantially constant bleed airflow through the associated space.

14.(Original) The combination of claim 13, wherein said devices under test comprise sockets supporting an integrated circuit under test, a finned heat exchanger on the socket, said finned heat

exchanger extending into the space between each burn-in board tray and its associated overlying fan tray.

15.(Previously Presented) The combination of claim 13, including a heat exchanger for cooling airflow entering the ducts on one end of the burn-in oven.

16.(Previously Presented) The combination of claim 12, wherein said burn-in oven has a blower for providing the flow of cooling air to inlet ends of said ducts, and a flow passageway carrying air from said blower to the inlet ends to provide cooling air to each of the ducts.

17.(Currently Amended) The combination of claim 14 and individual heaters for heating each of the devices under test, said controller receiving a the temperature signal from the respective device under test, and controlling its associated controllable fan and heater to maintain the temperature sensed at a desired range.

18.(cancelled)

19.(cancelled)

20.(cancelled)

21.(cancelled)

22.(cancelled)

23.(cancelled)

24.(cancelled)

25. (New) In combination, a burn-in oven, a plurality of burn-in boards in the oven, with a cooling airflow source, the burn-in oven defining a compartment, the burn-in boards having devices under test mounted thereon on a first side thereof in a pre-selected array, edges of the burn-in boards being supported on walls of the compartment and being spaced from other burn-in boards, a plurality of fan trays supported on walls of the compartment, and each fan tray being between the first side of a first burn-in board and a second side of a second burn-in board, the fan trays being supported spaced from each of the associated first and second burn-in boards and spaced from the devices under test of the first burn-in board, a laterally extending space comprising an airflow duct being formed between each fan tray and the second side of an adjacent second burn-in board, a plurality of fan openings through each fan tray in registry with devices under test on an associated first burn-in board, a plurality of controllable fans mounted on each fan tray on a side of the fan tray opposite from the devices under test of the associated first burn-in board, each controllable fan being positioned to direct airflow through one opening in the associated fan tray, a source of cooling fluid flow coupled to the airflow ducts, and a controller for selectively controlling the operation of each controllable fan as a function of a temperature signal provided from the device under test in registry with the respective controllable fan and fan opening to blow cooling fluid onto the device under test in registry with the respective fan opening.